

CLAIMS

I claim:

1. A magneto-optical disk having a surface to store data magneto-optically, the surface having a format comprising:
 - one or more data tracks on said surface, each data track being divided into one or more data wedges, each data wedge further comprising:
 - at least one headerless data sector, and
 - a wedge header information field.
2. The magneto-optical disk of claim 1, wherein the data tracks comprise a spiral pattern.
3. The magneto-optical disk of claim 1, wherein the data tracks comprise a double spiral pattern.
4. The magneto-optical disk of claim 1, wherein at least one of the data wedges comprises a non-integral number of headerless data sectors.
5. The magneto-optical disk of claim 1, wherein the headerless data sectors are of fixed length.
6. The magneto-optical disk of claim 1, wherein the headerless data sectors have variable length.
7. The magneto-optical disk of claim 1, wherein at least one of the data wedges comprises an integral number of headerless data sectors.

8. A data management system for a magneto-optical data storage disk drive, said management system comprising:

a magneto-optical disk having a surface for storing data magneto-optically, the surface having a format comprising:

one or more data tracks on said surface, each data track being divided into one or more data wedges, each data wedge further comprising:

at least one headerless data sector, and

a wedge header information field;

a data storage device to store a data sector information table that includes data sector locations, and

circuitry to transfer data sector information from the data sector information table to random-access memory, the random-access memory being accessed during a target sector search.

9. The system according to claim 8, wherein said data sector information table includes one or more split data sector locations.

10. The system according to claim 8, wherein said data sector information table includes error correction information for said data sector information table.

11. The system according to claim 8, wherein said data sector information table includes error detection information for said data sector information table.

12. The system according to claim 8, wherein said data sector information table is stored in non-volatile semiconductor memory.

13. The system according to claim 8, wherein said data sector information table is stored on said magneto-optical data storage disk.
14. The system according to claim 8, wherein the data sector information table is calculated from format parameters stored on said data storage disk, according to an algorithm stored on said data storage disk.
15. The system according to claim 8, wherein the data sector information table is calculated from format parameters stored on said data storage disk, according to an algorithm stored in non-volatile semiconductor memory.
16. A computer-readable storage medium having a configuration that represents data and instructions that cause a processor to:
- read format information from non-volatile memory;
 - calculate from said format information the data indicative of the location of constituent portions of data sectors stored on a magneto-optical data storage disk;
 - store said data indicative of the location of constituent portions of data sectors in a data sector information table data sector information table in semiconductor memory;
 - access said data sector information table in response to a request for a specific target sector from interface electronics;
 - determine from said data sector information table the precise location of said target sector;
 - instruct actuator electronics to locate said target data sector on the surface of said magneto-optical data storage disk; and
 - return requested data from said target sector to said interface electronics.

17. The computer-readable storage medium of claim 16, wherein the configuration that represents data and instructions further causes a processor to verify the integrity of the data in said target sector by applying error correction information included in said data sector information table.

18. The computer-readable storage medium of claim 16, wherein the configuration that represents data and instructions further causes a processor to verify the integrity of the data in said target sector by applying error detection information included in said data sector information table.

19. A computer-readable storage medium having a configuration that represents data and instructions that cause a processor to:

- read format information from non-volatile memory;
- calculate from said format information the location of constituent portions of a target data sector stored on said disk;
- instruct actuator electronics to locate constituent portions of said target data sector on the surface of said magneto-optical disk; and
- return requested data from said target sector on said disk surface to said interface electronics.

20. The storage medium of claim 19, wherein the configuration that represents data and instructions further causes a processor to:

- read format information from a data storage disk; and
- store the format information in random-access memory.